mission possible *mission bay*

UCSF takes pride in its daring, discoveries and scholarship just as San Francisco does in its description as the city that knows how.

So it is entirely fitting that as the century nears its close, San Francisco's oldest public university is playing a major role in the largest urban revitalization project in city history.

More fitting in this renaissance is where it's set — a 303-acre residential and business development being planned by the Catellus Development Corporation, in San Francisco's Mission Bay.

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San Francisco

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Public Affairs

renaissance at mission bay

UCSF NEWSBREAK

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Once a salt marsh abounding with marine life and home to coastal Native Americans who lived there in harmony with nature for more than 5,000 years, Mission Bay has gone through major changes.

Immigrants filled it with earthquake debris, parcelled it, sold and resold it and ran businesses on it.

With its 19th-century history as an upstart shipbuilding zone, a place of steam beers and clam chowder, waterfront rowing clubs and pleasure fishing, Mission Bay once symbolized the soul and spirit of a city that leapt into the American consciousness almost overnight.

Now home to abandoned Southern Pacific railroad yards, a golf driving range and warehouses, Mission Bay — a quarter mile away from the Giants' new baseball stadium — is once again on the verge of being reclaimed as a vital and vibrant San Francisco neighborhood.

Buildings and brainpower

At the heart of Catellus Development Corporation's entire redevelopment project lie 43 acres where UCSF will build a scientific research and teaching campus called UCSF Mission Bay. UCSF plans to create a unique blend of buildings and brainpower devoted to solving some of the most important questions in science, from how the brain develops and what genetic rules govern human behavior to novel insights into cancer, birth defects and Alzheimer's disease to name only a few.

Research success will create new discoveries that inevitably will improve the health of all. Research success also will lay the foundation for the tools and techniques that will improve, enrich and sustain the lives of future generations, much as the discovery of genetic engineering techniques at UCSF 25 years ago changed the course of medicine today.

But UCSF Mission Bay is not solely about science, it also is about students. As student enrollments go, UCSF's is small — only 4,500. Yet as the only UC campus devoted exclusively to advancing health through training and research, UCSF attracts some of the most talented graduate students and postdoctoral fellows from around the world. Together with faculty, their laboratory work has an impact on our lives far greater than their numbers might suggest. (See page 6.)

UCSF Mission Bay will also become a neighborhood hub. Its community center, fitness facilities, eateries, nearby waterfront walks and at least eight acres of publicly accessible open space will form a functional and attractive landscape that San Franciscans will likely value with the same enthusiasm they have UCSF's research and clinical breakthroughs.

UCSF on a mission

Given its current ramshackle appearance, the rebirth of Mission Bay may seem overstated. But that soon will change as work begins to prepare for the fall 1999 groundbreaking. The first UCSF foothold, Building 24 (so named because of the numbered block on the Mission Bay parcel map) will rise at the corner of Sixteenth and Owens streets.

At the end of what is expected to be almost two decades, UCSF Mission Bay will be home to 20 research buildings and 9,000 employees, contributing to the University's status as one of San Francisco's major employers.

The UCSF Mission Bay master plan for its 43 acres, designed by the architectural firms of Machado and Silvetti Associates Inc. and Gordon H. Chong & Partners, whose vision for the Mission Bay campus was selected after an international design competition in the fall of 1997, emphasizes general features that foster interaction.

The design scheme also was selected because of its compatibility with San Francisco architecture, its low profile (most buildings will likely be five stories or less) and the value placed on public accessibility of its open space. (See pages 4 and 5 for master plan details.)

The first phase will include two research buildings and a campus community center. Subsequent phases will result in a campus totaling 2.65 million square feet or three-quarters the size (but not the current density) of the main UCSF site at Parnassus Heights. Newsbreak will report on plans for the Parnassus campus in a future issue.

The Mission Bay campus also has a 2.2 acre site reserved for a school to be operated by the San Francisco Unified School District at the northeast corner of the campus.

Surrounding this academic nucleus will be a business zone reserved by its Catellus developers for biotechnology and pharmaceutical companies. Considering that UCSF is the birthplace of biotechnology, and its faculty and their discoveries the driving force behind the creation of 48 such enterprises, the close proximity of high-tech industries should foster new and intellectually powerful partnerships. It is these partnerships that could speed discoveries and accelerate their transfer to the bedside and the local pharmacy. They also are expected to translate into "corporate scholar" opportunities for students, who ultimately choose to pursue careers in private biotechnology companies.

Milestones and momentum

Reaching this important turning point in the development process is a tribute to UCSF planners, administrators, faculty and staff, three different chancellors, city officials and business leaders. Not surprisingly, there have been many milestones and critical junctures (see timeline below). Key to the entire effort, however, has been the unwavering support of San Francisco Mayor Willie Brown.

Indeed, the Mission Bay campus is far more than a UCSF project. The City and County of San Francisco, which donated 13 acres and Catellus, which gave 30 acres of land to UCSF, believe in the power of this new research campus to transform San Francisco into an international center of scientific discovery and economic growth.

Local business leaders share their vision and demonstrated their commitment by creating the Bay Area Life Sciences Alliance (BALSA), a nonprofit public benefit corporation that promotes biotechnology and life sciences development. BALSA made significant contributions to the development process and formed a limited liability corporation with UCSF a year ago to expedite the development of the campus. (See page 7.)

The exciting potential of creating a biotech mecca is not lost on leaders outside of San Francisco either. Bruce Alberts, head of the National Academy of Sciences, expects UCSF Mission Bay to ensure the University's position as a "world leader in biotechnology and biomedicine."

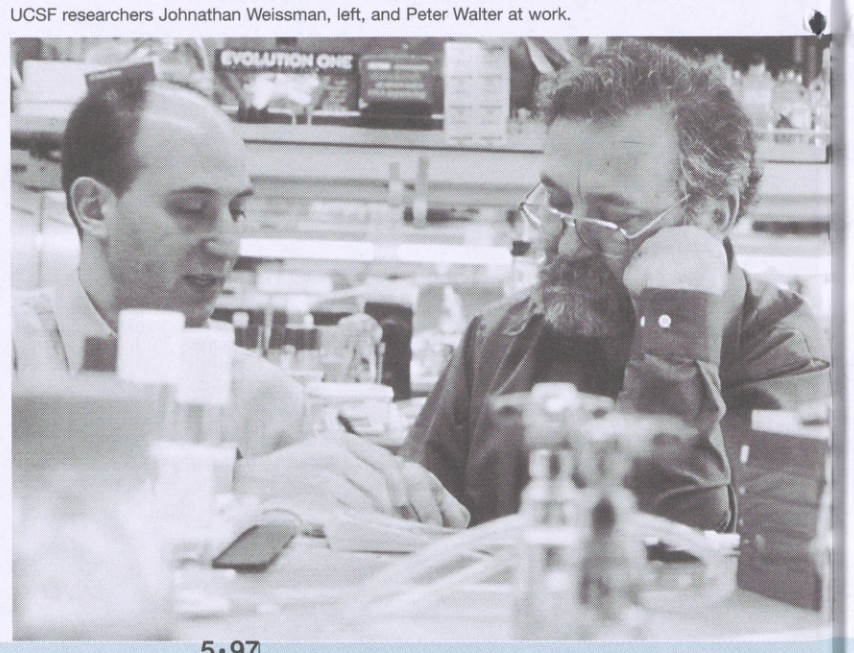
This leadership position has been built upon a unique culture of cooperation and merit, where results are shared across disciplines.

Mission Bay will place potential collaborators in the same physical space and in ways that further encourage contact, conversation and collegiality. In fact, Mission Bay will allow — for the first time in campus history — the housing of chemists and structural biologists under one laboratory roof. This combination will allow interdisciplinary teams to pursue a wide range of drug discovery studies that could yield new treatments for different types of cancer as well as AIDS.

As UCSF Chancellor J. Michael Bishop explains, "The decision to build a new research campus at San Francisco's Mission Bay exemplifies our desire to explore, examine and we hope, ultimately answer, some of the most awe-inspiring and vexing questions of human health and existence."

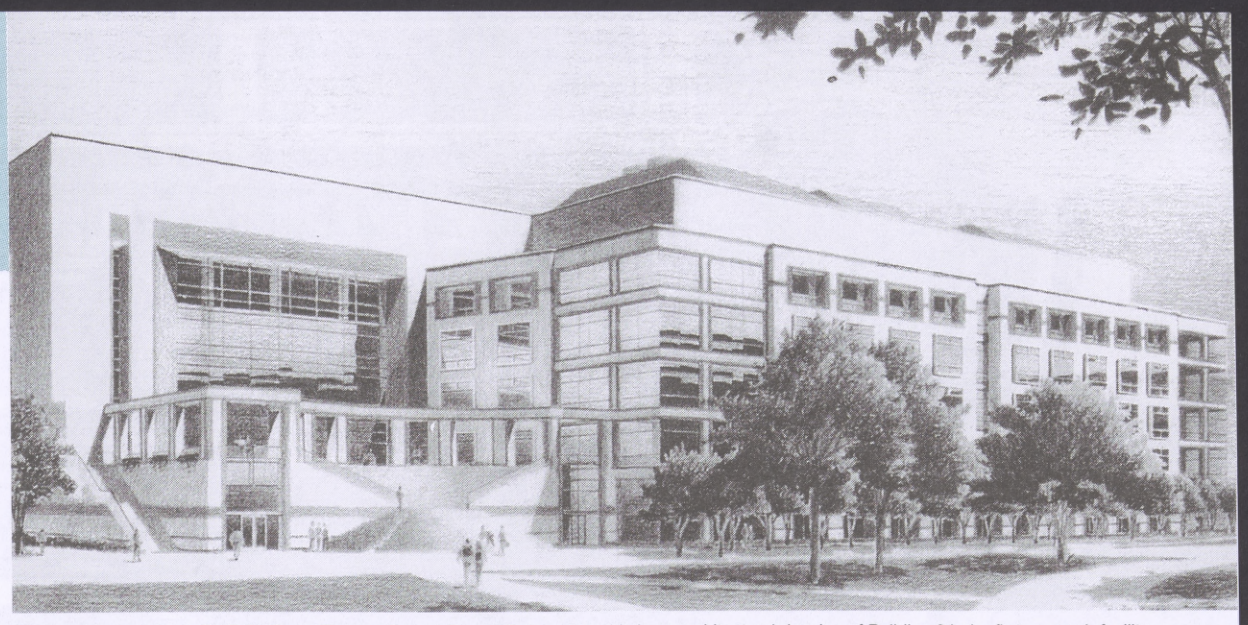
For more information about the UCSF Mission Bay campus, call the UCSF Public Affairs department at 415/476-2557.

UCSF researchers Johnathan Weissman, left, and Peter Walter at work.



1•97 UC Regents approve UCSF Long Range Development Plan and certify its Environmental Impact Report

5•97 Regents approve Mission Bay as location for major new UCSF site



Designed by architects SMP-SHG and Zimmer Gunsul Frasca Partnership, this is an architectural drawing of Building 24, the first research facility to be constructed at UCSF's Mission Bay campus.

Creating connectivity, collegiality & cohesiveness on campus

BY PAULA MURPHY

For every visionary proclaiming an esoteric and lofty plan for the Mission Bay campus, legions of faculty and staff are rolling up their sleeves, digging in the dirt, figuring out how to transform these seeds of prophecy into a reality.

The three tenets that make UCSF the unique institution that it is — connectivity, collegiality and cohesiveness — have been critical to this process as it has progressed. These principles, together with the acknowledgement of the surroundings, form the core of the master plan for the Mission Bay campus. (See page 4.) Connecting researchers, clinicians, staff and students in a meaningful way is a hallmark of UCSF and one that has been paramount in planning for the campus.

Faculty input

"Faculty have been involved from the very beginning — defining programs that will populate the campus, how those programs will interact with ongoing and newly developing programs at Parnassus, and all the way down to lab and building design," says Keith Yamamoto, chair of the Mission Bay Task Force and vice-chair of the chancellor's committee on academic implementation. "Like many things at UCSF, it's been a bottom-up planning process that has involved the faculty all the way through."

The task force, a 44-member faculty committee established in December 1996 by Haile Debas, dean of the School of Medicine, was charged with proposing the organizing principles for Mission Bay. After the first programs that will move to Mission Bay were chosen, Yamamoto, as a member of the academic implementation committee, worked with faculty subgroups in conjunction with architects to plan the lab space and overall layout for the first research building.

"We changed the basic footprint of the building in response to faculty concerns about the overall layout," says Zach Hall, vice chancellor for research and chair of the academic implementation committee. "It's a building that was designed from the inside out."

The Mission Bay project manager met with 26 UCSF groups a minimum of three times each to discuss the plans, Hall says.

"There were really quite a large number of people who put their collective wisdom into the design of this building," says Hall, who adds that this process is beginning again with the second research building.

Yamamoto, chair of the department of cellular and molecular pharmacology, says UCSF is unlike any other academic institution in that it is "led by people who place a very high value on the overall community and on talking with each other." This emphasis on collaboration is the central theme of the faculty's input.

"We realize how much we have gained from the interactions fostered while being jammed together at the Parnassus site," Yamamoto says. "The challenge is to find ways to maintain this coherence and cohesion even at separate sites. A lot of energy is going into making sure we have mechanisms for that."

The fruit of the intense partnership between faculty and architects is realized in the lab designs of Building 24. Some examples of faculty design ideas that will be implemented in this building are:

- The basic floorplan is modeled after the very successful design created by UCSF scientists for the Health Sciences East and West towers on Parnassus. Faculty offices are located in clusters, at the center of the laboratory space and adjacent to an interaction space.
- To maximize interaction, meeting rooms are scattered throughout the building, and attractive, open public spaces are planned along the spine and around the main auditorium or lecture hall.
- The labs will be located on the building's perimeter, letting in sunlight, and support areas will be located in the interior. Labs are designed to be flexible to allow for special research needs and future change.

Staff and student input

UCSF staff and students have also participated on several Mission Bay planning committees.

The Chancellor's Mission Bay Committee on Operations & Services, which includes staff and students, has been leading the charge, tackling issues such as parking, transportation and food services.

"We have roughly 20 working members on the committee who provide support services to research and clinical enterprises on campus and keep the campus fueled and operating," says Victoria Fong, co-chair of the committee and special assistant to the Office of the Vice Chancellor for Administration and Finance.

Fong and committee co-chair Colleen Nickles say that planning services for a new site is a "wonderful opportunity," which has already spawned invaluable byproducts, such as successful collaboration among departments that have never worked together before. This sense of teamwork should result in better services for everybody at all UCSF sites, Fong says.

New ideas for Mission Bay include providing virtual services by using the University's computer network to deliver information. The committee is exploring the ideas of using kiosks to make virtual services available to everyone and building an Internet cafe, where people could have a cup of coffee and check their email and the Web, too.

"Because we won't necessarily have every department, such as accounting and human resources, physically represented at Mission Bay, we'll be relying on the network and shuttle system to move ideas and people back and forth," says Nickles, director of administrative coordination & business planning.

Transportation, which is already provided by a network of shuttle buses that makes 11 stops linking UCSF sites throughout San Francisco, is a significant concern. The committee will conduct studies to assess how adding another site will affect transportation, as well as housing, needs. The studies will also factor in the use of public transit.

Transportation is also important to the quality of campus life, providing faculty, staff and students access to recreational and conferencing facilities, as well as events, such as brown bag lectures and musical programs, which now mostly take place on Parnassus, but will become available at Mission Bay in the future.

"It's not just physical space we're planning but also making sure that the work environment is supportive for the faculty, staff, and students," Fong says.

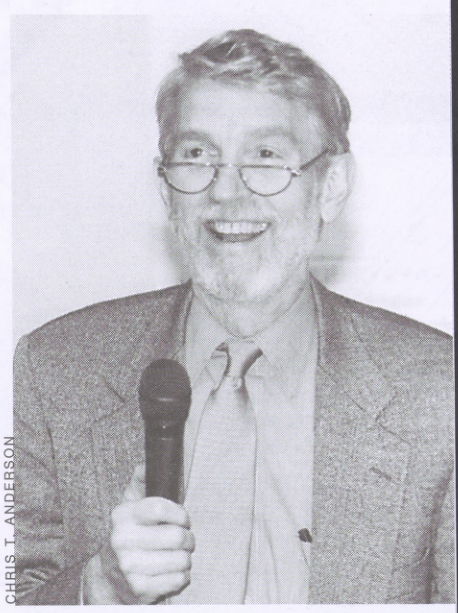
Planning for the campus community center, to contain a café, fitness center, conference center and more, was the task of another committee, co-chaired by Debas. "This building will be the heart of UCSF and we hope will become a central meeting place for our faculty, staff, residents and students from all campus sites," he says. "We have taken great care in planning this building to ensure we solve once and for all the needs of our students: health services, student aid, lockers and other student services."

Some students have organized themselves to address critical issues.

A group of graduate students outlined a number of concerns from transportation, to safety, to housing in a 1997 letter to the chancellor. "It was, in fact, a very early and important guide in our planning process," Hall says.

A more recent forum put the architects and planners of the first research building in touch with the needs of disabled faculty, staff and students. The UCSF Disability Interest Group (DIG) met with planners in early March and voiced concerns over access needs that are not automatically addressed by the federal Americans with Disabilities Act.

Architects and planners say they will heed the group's recommendations on a number of issues, including equipping the first floor lobby restrooms with automatic door openers.



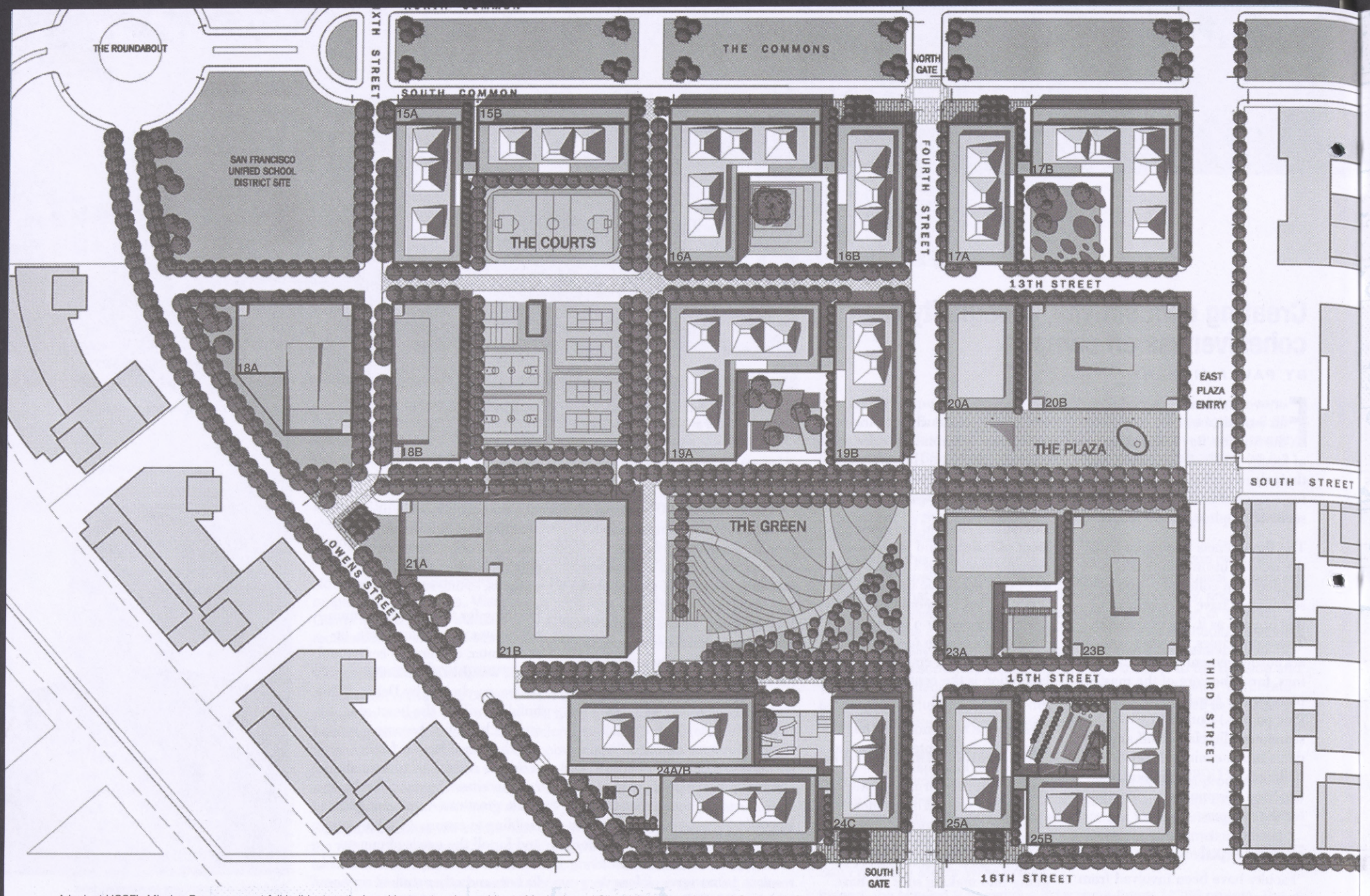
CHRIS T. ANDERSON

Zach Hall, vice chancellor for research, talks about Mission Bay plans at a recent roundtable discussion at UCSF.

9•97 Regents and Catellus Development Corp. execute agreement for land donation for new campus at Mission Bay

11•97 Bay Area Life Sciences Alliance (BALSA) sponsors design competition and selects Machado and Silvetti Associates Inc. to prepare master plan

1•98 Faculty committee appointed to oversee programs of first research building (Building 24)



A look at UCSF's Mission Bay campus at full buildout as designed by master plan architects Machado and Silvetti Associates Inc. and Gordon H. Chong & Partners

Master plan creates new cityscape

BY ANDY EVANGELISTA

Patches of weeds sprout around cragged concrete, and drab-colored warehouses are surrounded by equally worn chain-linked fences. Trucks mostly traffic through this area, where rusty railyards and other signs of old or abandoned industries make up the landscape. This is what the heart of the Mission Bay campus looks like today. In just a few years, however, it will be called the Green, the largest of the campus open spaces and the point where nearly all paths on the pedestrian-oriented complex converge.

In October of this year, the Mission Bay site will begin a transformation from what has been described as a "postindustrial wasteland" to a campus. Building the Mission Bay campus will accomplish more than adding cross-town vigor to UCSF's scientific and academic pursuits. "We will be setting the tone for a new cityscape and entire neighborhood," Chancellor J. Michael Bishop says.

The new site will be more than a cluster of laboratories and buildings. It will be a campus with unique features, eventually placing an identifiable 43-acre stamp at the core of one of the city's most important developments and new neighborhoods.

Overall plans call for five million square feet of offices and labs operated by biotechnology firms drawn to the area by UCSF's presence, some 6,000 residential units of which about 1,700 will be affordable, a 500-room hotel, stores, restaurants and entertainment.

While UCSF is expected to be the nucleus of the total 303-acre Mission Bay complex planned by Catellus Development Corporation, the new campus will have its own focal point — the Green. This area "will establish the character of the campus and will be the space that provides the lingering memory of the UCSF campus, in a fashion similar to Main Quad at Stanford University," according to the master plan.

In only a few years, after much of the blueprint becomes reality, a day for a UCSF graduate student, professor, staff research associate or administrative employee could include the following: Arrive early by Muni light rail at the Third Street entrance, have coffee in a Plaza café, stroll through one of the seven gardens on the way to the lab or office, eat alfresco on the Green at lunchtime, attend an afternoon videoconference broadcast from Parnassus, after work play tennis or basketball on the Courts, shower at the gym in the community center, have a beer at the bar, watch a performance in the nearby auditorium, or walk a few blocks to PacBell Park for a Giants game.

The Mission Bay campus plan is more than a scheme for construction. It is a directive to foster collegial interaction between faculty, students and staff — and it is an architectural strategy to ease life at an institution where intense research, work and study can have grinding effects.

The following are highlights of the Mission Bay Campus Master Plan and Design Guidelines, prepared by Machado and Silvetti Associates Inc. and Gordon H. Chong & Partners, with landscape architects, the Olin Partnership:

Design principles: Four principles — connectivity, collegiality, cohesiveness and context — govern the organization and character of open space and buildings. Bridges on the upper levels, for example, will not only connect adjacent structures, but also encourage interaction among occupants of the same building as well as different buildings on the same block. At the ground level, passageways will link buildings to buildings and connect the variety of open spaces. The gardens, for example, will gather activity from surrounding classrooms and lecture halls.

Consistent use of specific trees, plantings, paving and lighting standards will add to the collective campus image and visually enhance connectivity. Campus landmarks, landscape features and accessories — such as furniture and information kiosks — will guide pedestrians to specific campus destinations.

Offices and laboratories in each building are located adjacent to smaller "collegial rooms," which vary in use from study lounges to conference rooms, eating areas and open air atriums. All will provide opportunities for interaction.

Open space: At least eight of the 43 UCSF Mission Bay acres will be open space — this was a condition of the land donation by the City and County of San Francisco and Catellus. By comparison, the biggest piece of accessible open space on the Parnassus campus is Saunders Court, which is just over a half-acre. The Mission Bay campus will be organized around three major open spaces: the Plaza, the Green and the Courts — each differing in character.

3•98 SF Board of Supervisors approves donating Block 24 to UCSF

Regents approve forming Mission Bay Limited Liability Company between BALSA and UCSF

4•98 UCSF submits a preliminary campus development plan to Catellus

9•98 Mission Bay Subsequent Environment Impact Report certified by SF Redevelopment Agency and Planning Commission

- The Plaza acts as the primary gateway to campus from the rest of the city. The future Third Street Muni Light Rail and the 22-Fillmore bus will stop on the east side, and the entrances to two of the parking garages are nearby. Retail activities — such as eateries, stores and flower shops — will line both sides of the wide Plaza, and a row of trees on its south side will encourage a visual and pedestrian flow to the center of the campus. A café and fountain within the plaza are possibilities.
- The Green will be the heart — the main leisure area — of the campus. Laboratory buildings generally will surround the Green, which is the spot for people to move through, linger or gather for campus events — perhaps even graduation ceremonies. Its shape and size are nearly identical to San Francisco's Union Square. Paths will border the green, and two more will cut through it, drawing faculty, students and staff to this hub of campus and social activity.
- The Courts, located to the north of the Green, will offer outdoor recreational activities. The actual design will depend on needs surveys, but one plan shows the area is large enough for two basketball, two volleyball and four tennis courts, plus a mini-soccer field that is encircled by a running track. A softball diamond and 50-meter swimming pool are other possibilities.

Gardens and landscape

Seven gardens throughout the campus will provide open space and spots for campus members to interact. Among the suggestions are an Asian Garden with simple elevated wood decks and benches, a Medicinal Herb Garden containing historically useful medicinal plants, and a Mediterranean Garden with evergreen plants making up hedges, walls and canopies. Trees will line much of the campus, and a cherry tree orchard could be placed at the eastern edge of the Green.

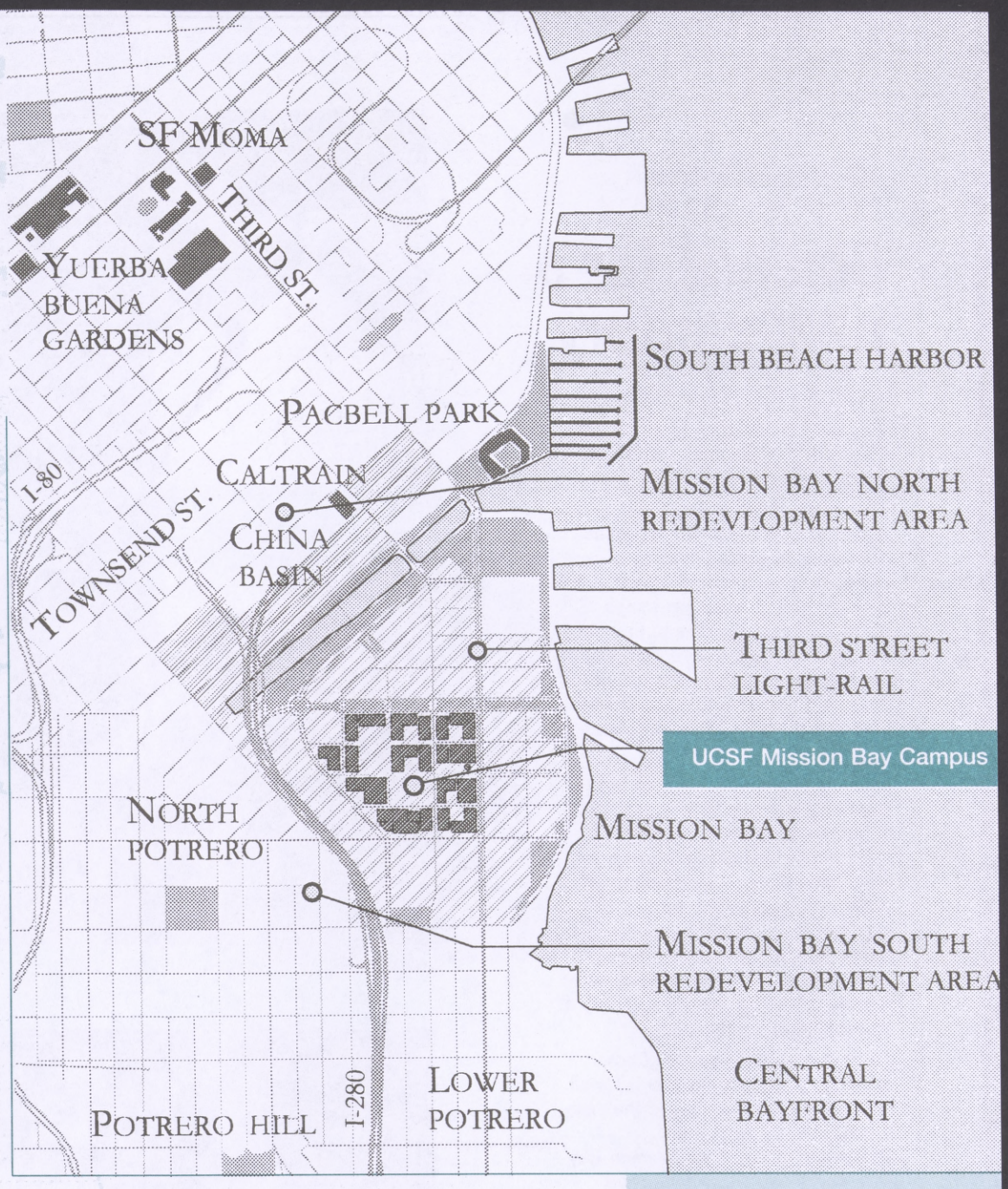
Campus community center

While the brain may be in the laboratory buildings and the physical heart of the campus will be the Green, its soul could be the community center — a 250,000-square-foot complex bordering the west side of the Green. It will include student services, a large fitness center, dining facilities, conference room and a multipurpose auditorium.

Streets and gateways

The public streets bordering the campus, as well as the one public road that runs through the campus (Fourth Street, which runs north-south) will be consistent with the overall Mission Bay plan. The University, however, plans to enhance portions of Fourth Street to give it a campus look and feel. The outer public streets may have busy vehicular traffic, but for the inner campus, the UCSF master plan proposes a contiginous network of pedestrian spaces as an alternative to the surrounding grid of vehicular and service traffic. Four streets running through the campus will be private and University-maintained. Fifth Street, for example, will be pedestrian only.

There will be five primary arrival points or gateways to the campus. Each will be landscaped and include kiosks, campus maps and signage. Inside the campus, above-ground connective passageways between buildings will increase pedestrian traffic on campus while offering an alternative to street sidewalks.



Structures and buildings

The new campus will eventually have 20 structures, to be built in phases over the next 20 years. Of the 2.65 million gross square feet to be developed at Mission Bay, 6 percent will be for instruction, including classrooms, teaching labs, seminar rooms, academic offices; 46 percent will be for research, and 48 percent will be for support (library, animal care, administrative offices and activities, recreation, child care, food services, service yards, utilities and storage).

The master plan anticipates that the cornice line of all buildings will be 85 feet, with rooftop mechanical equipment set back from the perimeter. Within the 85-foot height could be five stories of laboratories, six stories of administration space or an eight-story parking structure.

The plan designates several specific locations for arcades, which not only will link buildings but also offer an inviting environment for interaction among campus members. Light and natural colors — shades of light grays, sand or white, derived mostly from the building materials — will be the dominant look. Use of light-shades of materials and earth tones "will visually connect the campus to the overall coloration of the city of San Francisco and surrounding communities."

Parking: When fully built, the campus will have a total of 4,600 parking spaces distributed in five different structures and areas. Some surface parking will be phased in. Also, UCSF will provide shuttle service during initial development and through buildout of the campus.

Public school site: A 2.2-acre site for a school, to be operated by the San Francisco Unified School District, is located at the northwest corner of the campus site, near planned housing to the north.

To obtain a copy of the draft master plan for the UCSF Mission Bay campus, contact the Campus Planning Office at 415/476-2911.

Building in phases

The UCSF Mission Bay campus will be developed in phases, the first two (phases 1 and 1A) being the initial five-year period which starts this year. Successive phases will be completed within five- to eight-year increments. Timing of some building construction will depend on program consideration and funding availability.

The following are projected phases:

Phase 1

The first research building (24 — structural, chemical, molecular and cell biology), the campus community center (21B), and another research building (19B — neuroscience, developmental biology and genetics) will be constructed. The Green will also be completed to establish the "heart" of the campus. A connection to Third Street will be established with a portion of the Plaza providing access to the light rail Muni stop.

Phase 1A

Two additional research buildings (17A and 17B), proposed locations for the Gladstone and Gallo Institutes.

Phase 2

Completion of the Green, surrounding major open space with research and administrative buildings, including the library and day care center (23A); first parking structure (21A) completed.

Phase 3

The Plaza and the Courts completed. Remaining construction of the campus, including six research buildings, an administrative building and four parking structures.

Architect Bill Diefenbach of SMP/SHG explains the roofscape at a recent public meeting on UCSF's Mission Bay campus.

CHRIS T. ANDERSON

10·98 SF Board of Supervisors approve Catellus' overall Mission Bay project

10·98 City and County of SF approves donation of remaining property for Mission Bay campus

3·99 Regents approve design and funding of Building 24

Science for a new century

Medical "miracles" do happen. But usually such feats are preceded by decades' worth of basic research.

These scientific explorations are not aimed at curing specific diseases, but rather they are driven by a curiosity to understand fundamental biological processes, on scales ranging from molecules to the whole organism. A better understanding of life processes is the basis for an improved understanding of diseases, and ultimately for advancing treatment and finding cures.

Mission Bay will be home to basic scientists working in new programs in human genetics, brain development and advanced technology — areas where the UCSF tradition of collaboration is expected to yield valuable insights into how cells communicate and the how the brain learns to methods for creating personally tailored drugs for a variety of diseases and conditions.

"There's a growing sense of how exciting an opportunity this is for all of us — the individuals and the institution as well," says Keith Yamamoto, chair of the Mission Bay Task Force and vice chair of the chancellor's committee on academic implementation. "We have the opportunity to reconfigure the way we do our science — something other institutions don't get a chance to do."

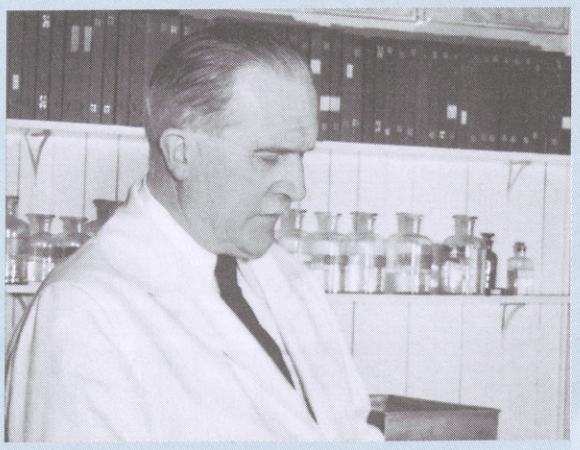
This research renaissance, which could have immediate implications for understanding (and ultimately treating) Alzheimer's and Parkinson's disease, breast and prostate cancer, spinal cord injuries, autism, epilepsy, schizophrenia and thyroid disorders, is not confined to Mission Bay.

UCSF's scientists and the graduate and post graduate students who conduct laboratory research at Parnassus Heights, San Francisco General Hospital Medical Center, Veterans Affairs Medical Center, and UCSF/Mount Zion, already are credited with major advances on the road of discovery. UCSF claims eight of the top 25 most successful University of California inventions and more than 70 percent of the system's patent revenue.

UCSF discoveries also have, after commercial research and development, resulted in the creation of 250 new products to improve human health, including better MRI technology for detecting and monitoring disease and a new generation of gene-based diagnostic tests for cancer.

There is no way to predict the basic research discoveries that will be made, nor the changes in medical treatment that will ultimately result. But new space and research synergy is what makes UCSF Mission Bay an exciting turning point along the road of discovery.

Indeed, as UCSF geneticist and microbiologist Ira Herskowitz explains, "Without Mission Bay, many new research initiatives wouldn't have a future." That they now do should be welcome news to countless thousands whose quality of life may ultimately improve as a result.



Karl F. Meyer

PHOTOS BY DAVID POWERS

John Clements

Harold Varmus, left

Herbert Boyer

The road to discovery

UCSF began to develop its stellar research reputation in the 1920s when Karl F. Meyer established the only laboratory in the Western Hemisphere to study plague and encephalitis.

Now, almost 80 years later, the road of discovery has become long and distinguished — a fact underlined by the three Nobel prizes awarded UCSF scientists in the last decade for seminal work in cancer and brain disease.

The new campus at Mission Bay, and the innovative research programs to take place there, represent the University's continuing commitment to advance the cause of human health well into the next century.

1925

Karl F. Meyer originates protective measures that save the canning industry from botulism.

1928

Chauncey Leake establishes department of pharmacology and over next 15 years, helps to develop new treatments for dysentery, discovers amphetamines and introduces new type of anesthetics.

1967

Hormone Research Laboratory moves from UC Berkeley to Parnassus campus under C.H. Li. Four years later, Li synthesizes human growth hormone.

1969

John Clements and colleagues discover that the absence of a natural lung lubricant is cause of infant respiratory distress syndrome, setting the stage for the creation of a synthetic surfactant a decade later that continues to save the lives of thousands of infants each year.

1973

Herbert Boyer and Stanford colleague Stanley Cohen develop recombinant DNA technique (gene splicing) that revolutionizes biology and spawns the biotechnology industry.

1976

J. Michael Bishop and Harold Varmus discover oncogenes, cancer-causing genes whose normal functions have gone awry.

1979

The biotechnology company Genentech, founded by Boyer, in collaboration with UCSF, develops synthetic human growth hormone. Using gene mapping techniques, UCSF's Y.W. Kan and Judy Chang discover the single genetic mutation responsible for beta thalassemia, the most common form of a life-shortening blood disease.

1982

Stanley Prusiner proposes the existence of infectious proteins he labels prions and names them as culprits in certain human brain diseases. And, thanks to William Rutter's seminal work with rat insulin, genetically engineered human insulin goes on the market.

1986

FDA approves genetically engineered hepatitis B vaccine created by Rutter and colleagues.

1989

Bishop and Varmus win the Nobel Prize.

1990

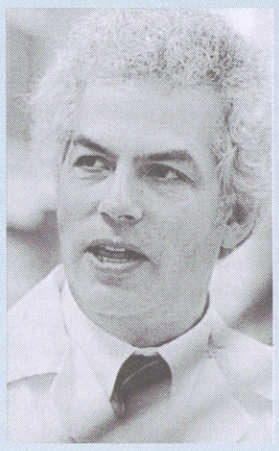
After discovering telemeres and telomerase, Elizabeth Blackburn comes to UCSF to pursue her work into the molecular events that control the mechanisms of cell health and longevity and that shed light on the processes of aging and cancer.

1995

Rod Phibbs and Kevin Shannon determine that the anemia drug erythropoetin, a mainstay in the treatment of kidney disease, can be used to avoid blood transfusions in premature, anemic newborns.

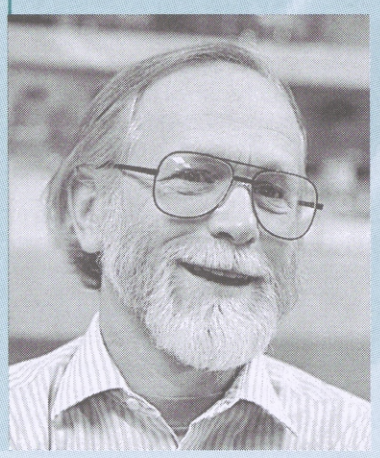
1997

Prusiner wins the Nobel Prize.



Stanley Prusiner

William Rutter



J. Michael Bishop

Elizabeth Blackburn

10•99
UCSF groundbreaking for Building 24

4•2000
PacBell Park opens

9•2002
Anticipated initial occupancy of Building 24 (Structural, Chemical, Molecular and Cell Biology)

PHOTOS BY CHRIS T. ANDERSON

Bruce Spaulding, vice chancellor for university advancement and planning, points to features of UCSF's first research building at Mission Bay at a recent meeting of the Community Advisory Group. Pictured from left are Gloria Bonilla, executive director of Centro Latino de San Francisco senior center; Steve Arcelona, president of the Private Industry Council; Phil DeAndrade, president of the Potrero Hill Merchants Association and a resident of Mission Creek; Sue Bierman, member of the San Francisco Board of Supervisors; and Elaine Johnson, director of Bio-Link, a national center for student training in biotechnology developed and operated by City College of San Francisco.

Reaching out to the community

BY BILL GORDON

UCSF's new Mission Bay campus grew out of an innovative collaboration among UCSF officials, San Francisco Mayor Willie Brown, community representatives, and local business leaders.

It seems only appropriate that UCSF reached across traditional boundaries to make the new campus possible. Mission Bay promises to give San Francisco the opportunity to become a center of the booming biotechnology industry and to give neighbors a real voice in helping to shape the campus.

"For more than 130 years, San Francisco and UCSF have shared a history of opportunity, innovation and accomplishment," says Mayor Brown." With UCSF's new campus located at the heart of the Mission Bay development, this partnership between a great city and a great university promises to continue long into the future."

UCSF began planning eight years ago for what eventually became the decision to expand at Mission Bay.

As UCSF began preparing a new Long Range Development Plan (LRDP), one of the first steps the campus took was creating a Community Advisory Group (CAG). Made up of representatives from a wide range of neighborhood, civic, ethnic, labor, and business groups, the CAG included some of the University's toughest critics. As UCSF planners assessed the campus space needs and searched for expansion opportunities, CAG members worked as partners, advising – and occasionally reprimanding – the campus.

"From the first day of the LRDP process, the campus remained committed to developing a plan that would be viewed as a solution both by the campus and by the community," says Bruce Spaulding, UCSF vice chancellor for university advancement and planning. "The only way to ensure that community concerns were heard was to make our neighbors and other concerned citizens part of the planning process."

When the UC Board of Regents approved UCSF's 300-page LRDP in 1997, it contained a statement of 160 goals and objectives co-authored by the CAG, a UCSF faculty committee, and a UCSF staff advisory committee. The goals and objectives address a variety of development philosophies, including building design, amenities and services, community outreach and environmental safety.

"Carrying out the goals and objectives won't always be easy," says CAG member Dennis Antenore, an attorney and a member of the San Francisco Planning Commission. "We're going to run into a lot of roadblocks along the way, and the University and the community need to continue working together to overcome the obstacles."

But Antenore believes the effort will be worthwhile.

"The University and the community are essential to one another," Antenore says. "It would have been a great loss to San Francisco if UCSF had moved to a new site outside the city. That's one of the most important things I've learned in this process."

UCSF reconfigured the CAG to include new members who live near Mission Bay while retaining a core of long-term members, including Antenore. Many of the new members live in Potrero Hill, South Beach and Bayview Hunters Point.

Dennis Antenore

UCSF Community Advisory Group

Dennis Antenore
San Francisco City Planning Commission & Parnassus neighbor

Ray Antonio
President, Local 250-A, Transport Workers Union of America

Eila Arbuckle
Mayor's Office Treasure Island

Sue Bierman
San Francisco Board of Supervisors & Parnassus neighbor

Gloria Bonilla
Executive Director, Centro Latino de San Francisco senior center

Janet Carpinelli
Lower Potrero Hill Neighborhood Assn.

Anne Cervantes
Cervantes Design Associates, SPUR, & Society of Hispanic Architects, Planners & Engineers

Gordon Chong
Gordon Chong & Partners & American Institute of Architects

Essie L. Collins
Chair, Housing and Economic Development Committee, Western Addition Concerned Neighbors

John B. Corsiglia
Laurel Heights Improvement Assn.

Craig Dawson
Inner Sunset Merchants Assn.

Phil DeAndrade
President, Potrero Hill Merchants Assn. & Mission Creek Harbor Assn.

Diane Filippi
San Francisco Chamber of Commerce & Principal, Simon Martin-Vegue Winkelstein Moris

Agar Jaicks
Member, Human Rights Commission, Parnassus neighbor & elected member of Democratic National Committee

Elaine Johnson
City College of San Francisco, Director, Bio-Link

Walter Johnson
Secretary-Treasurer, San Francisco Labor Council

Beatrice Laws
Parnassus neighbor

Toby Levy
Architect, Levy Design Partner & South Park Improvement Assn.

Enola Maxwell
Executive Director, Potrero Hill Neighborhood House

Dick Millet
Potrero Boosters Neighborhood Assn. & Mission Bay Citizens Advisory Committee

Toye Moses
Executive Director, Southeast Community Facility Commissin in Bayview Hunters Point

Andy Nash
San Francisco Tomorrow

Ruth Passen
Potrero Hill Neighborhood House & Editor of Potrero View

Norman Pearce
Pier 40 Roastery & Café & South Beach/Rincon Point Citizens Advisory Committee

Gladys Sandlin
Executive Director, Mission Neighborhood Health Center

Paul Sherrill
Sherrill & Morrison

Potrero Hill neighbor, South Beach/Rincon Point Citizens Advisory Comm., SOMA Architect

Dorris Vincent
BVHP Redevelopment Project Area Committee & Third Street Rail Community Advisory Group

Oscaryne Williams
Site Supervisor/Coordinator, Potrero Hill Family Support Center

Evelyn Wilson
Coalition of San Francisco Neighborhoods & Sunset-Parkside Education Action Committee & SPUR

Corinne Woods
Bayview Boat Club & Mission Creek Harbor Assn.

Mayor Willie Brown

A partnership for the 21st century

As UCSF searched for a major expansion site, a partnership of business and government leaders worked together to ensure that UCSF would remain in San Francisco.

The result of their efforts was the birth of the UCSF Mission Bay Campus Limited Liability Company, a unique nonprofit collaboration between the Bay Area Life Sciences Alliance (BALSA) and the University to support the charitable, scientific, and education programs of UCSF. The organization hopes to expedite the construction of the new campus.

The origins of the UCSF Mission Bay Campus LLC can be traced to April 1996, when Mayor Willie Brown called a citywide economic summit. A report commissioned for the summit by the San Francisco Partnership, a public-private venture devoted to helping businesses establish themselves in the city, identified three areas of great economic potential for San Francisco — biotechnology, multi-media, and financial services.

Following the summit, a group of San Francisco business leaders met to discuss how to best follow through on the recommendations. This group later established itself as BALSA to promote biotechnology development in the region.

In March 1998, the UC Regents approved the creation of a partnership between BALSA and UCSF to help develop Mission Bay. Under the agreement, all strategic planning and financing decisions remain within the control of the University.

"UCSF has long been known for its innovative collaborations among scientists, so it is fitting that an equally innovative public-private collaboration, such as that between BALSA and UCSF, is creating a new future for San Francisco by helping to make UCSF Mission Bay campus a reality," says San Francisco businessman Sandy Robertson, a member of the BALSA board of directors.

As UCSF considered expanding outside the city, BALSA provided essential assistance in negotiations that resulted in the land donation by the city and Catellus.

BALSA also sponsored the international competition to select an architectural team to develop the campus master plan and has underwritten the costs for completing the master plan.

Currently the LLC, which refers to itself as the UMBC (an acronym for UCSF Mission Bay Campus) is taking the lead to develop a second research building and is proceeding with plans to develop the campus community center.

In addition, the LLC has retained the services of two firms — Economic & Planning Systems and Harding Lawson Associates — to develop the infrastructure financing strategy.

SUMMER•2003

Third Street Muni Light Rail opens

2003

Second research building (Building 19) opens (Neuroscience, Developmental Biology, Genetics)

2003

Campus Community Center (Building 21) opens

Financing the Mission Bay campus

Perhaps one of the last opportunities to create from the ground up — in a city long since built up — an entirely new campus, UCSF Mission Bay represents both promise and challenge.

With a price tag of more than $1 billion to build the entire campus, UCSF will use a combination of sources to finance construction over the next two decades or more.

Funds to build the first phase, to cost $390 million, will come from a variety of sources, including the state, external financing, campus reserves, prepaid leases and existing and future donor gifts.

UCSF is calling upon donors to contribute about half of construction funds for the first research building, to cost $222.4 million.

Devising a viable financial plan — one that considered program needs, costs and the budget — for this building has been the focus of months of stringent efforts, including review by the project's lead consultants: the executive architect, an independent cost estimator and the construction manager. Based on the project's schematic design, each made a cost assessment and then reconciled them to produce the construction cost estimate. The projected estimate was then validated by means of a third-party review conducted by the UC Office of the President.

Through value engineering sessions and constructability reviews conducted by the project team, UCSF has taken millions of dollars of costs out of the budget without affecting the program, says Steve Barclay, vice chancellor for administration and finance.

UCSF will continue to use these methodologies through the remainder of the design process and the completion of working drawings, he says.

"We believe that we are getting the maximum value for our sizable investment in this building," Barclay told the UC Board of Regents before it approved the design and financial plan for the first building on March 18.

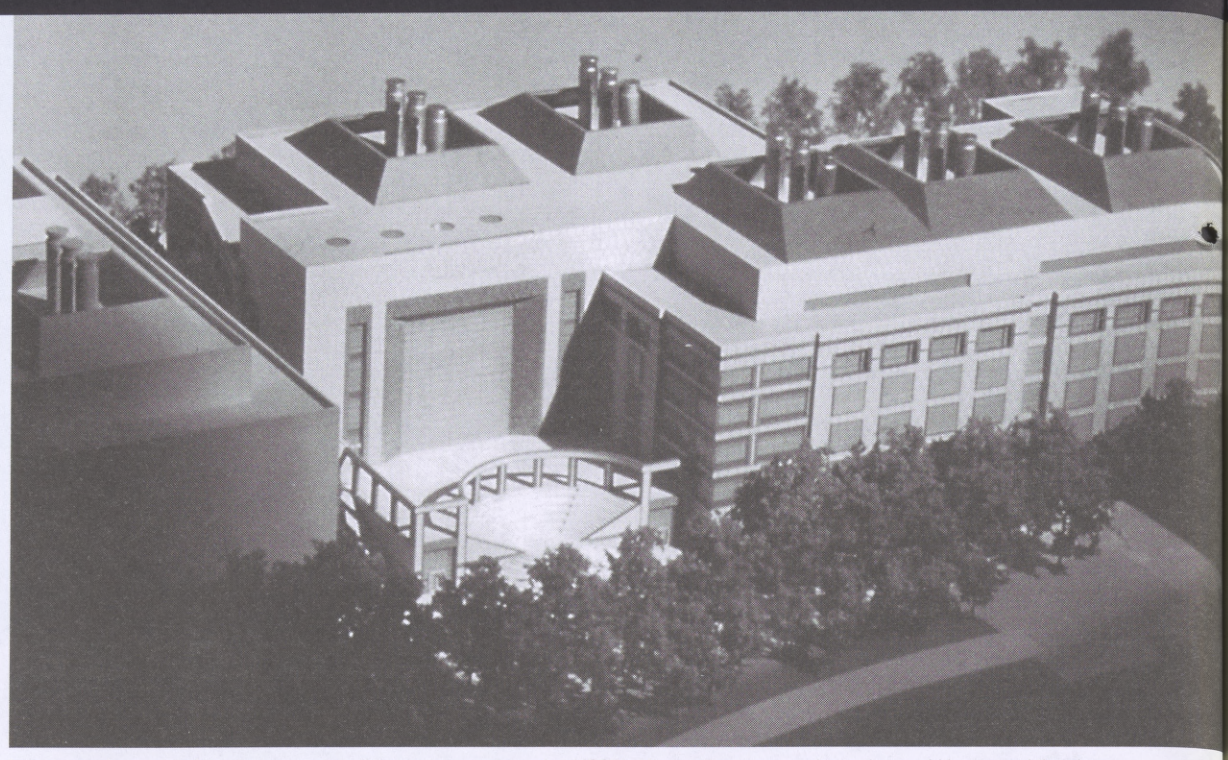
The financial plan for the first building calls for:

- $21 million in state construction funds from the voter-approved bond measure last November;
- $110 million in gifts;
- $18 million from a pre-paid lease;
- $3 million in campus reserves; and
- $70 million in proceeds from external financing.

If UCSF is unable to raise the full $110 million in donations, UCSF has identified other ways to carry the project forward until the gifts are collected, Barclay says. In that case, UCSF officials will return to the Regents to seek authorization for another financing plan.

"This [venture] is part of the driving force of the California economy," says UC President Richard Atkinson, who commended the entrepreneurial efforts of the University. He credited the faculty for their ability to compete nationally for research dollars that spawn new ideas and developments.

Development of Mission Bay beyond the first phase will depend on future funding and economic patterns.



This photo of a model of the first research building to be constructed at UCSF's Mission Bay campus shows the amphitheatre and the glass atrium, both of which face the main open space of the campus, called the Green.

According to the Sedway Group, a respected real estate and urban economics firm retained by the city to perform a fiscal and economic impact analysis of the entire Mission Bay redevelopment project, the future looks bright. The Sedway Group found that the total fiscal impact of the burgeoning biotechnology zone over 30 years is a net increase of $527 million to the city and the San Francisco Unified School District, which is expected to open a school on the UCSF site. Further analysis found that at project buildout, Mission Bay is expected to generate about 42,000 direct and indirect jobs, of which about half will be held by San Francisco residents, according to the Sedway Group.

While raising funds for the Mission Bay campus is a lofty task, UCSF is ahead of the game in that the 43-acre campus property — valued at some $100 million in today's hot real estate market — will not cost the University a penny.

At the onset of negotiations for the land at Mission Bay, Catellus Development Corporation offered to sell 30 acres to the University for $63 million. But in a deal designed to keep UCSF in San Francisco, Catellus agreed later to give the 30 acres to UC, says Bruce Spaulding, vice chancellor for university advancement and planning.

Catellus has already transferred five acres, known as parcel 24, where UCSF will begin construction this fall. Twenty acres more are expected to be transferred in Spring 1999, with the remainder of the site to be conveyed after 500,000 gross square feet have been developed on the preceding parcels.

The land transfer is being phased in to accommodate the University's development plans, and to optimize the tax benefits Catellus will realize through the land donation, Spaulding says.

The San Francisco Board of Supervisors already approved the donation of 13 acres of city property within the campus site.

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